

Remarks

Based on the above amendments and the following remarks, Applicants respectfully request reconsideration and withdrawal of the outstanding rejections.

Status of the Claims

Claims 2, 6-9, 14, 17, 20, 37-40, 69, and 71-75 are currently pending in the application. Claims 71 to 74 have been canceled. Claims 2 and 20 are currently amended. Support for the claim amendments can be found in the original claims and throughout the Specification. Thus, no new matter is introduced by this amendment and its entry is respectfully requested.

Rejection of Claims Under 35 U.S.C. § 112, First Paragraph

I. Written Description and Enablement

Claims 2, 6-9, 14, 17, 20, 37-40, 69 and 71-75 were rejected as being non-compliant with the Written Description and Enablement Requirements of 35 U.S.C. § 112, first paragraph. Applicants respectfully traverse.

The present claims relate to Pol I type *Thermatoga neapolitana* DNA polymerases having reduced or no misincorporation of nucleotides during nucleic acid synthesis with a modification in the O-helix region defined by SEQ ID NO. 1. The claimed modification includes an amino acid substitution at position Arg722 (*i.e.*, with Ala, Asn, Asp, Cys, Gln, Glu, Gly, His, Ile, Leu, Lys, Met, Phe, Pro, Ser, Thr, Trp, Tyr, or Val) and/or an amino acid substitution at position Lys726 (*i.e.*,

with Ala, Arg, Asn, Asp, Cys, Gln, Glu, Gly, His, Ile, Leu, Met, Phe, Pro, Ser, Thr, Trp, Tyr, or Val).

In the Office Action of August 13, 2008, the Examiner has rejected the claims as allegedly lacking sufficient written description and enablement due to the “openness” of the claims resulting from the use of the transitional phrase “comprising.” *See* Office Action at pages 4 and 6.

Although Applicants respectfully disagree with this characterization, in an effort to expedite allowance and without acquiescing to the Examiner’s assertions, Applicants have amended the language of claim 2 to recite the transitional phrase “consisting essentially of”. As set forth in the MPEP, “[t]he transitional phrase ‘consisting essentially of’ limits the scope of a claim to the specified materials or steps ‘and those that do not materially affect the basic and novel characteristic(s)’ of the claimed invention.” *See* MPEP 2111.03. Accordingly, Applicants respectfully submit that the Examiner’s concerns with respect to written description and enablement as they relate to the use of the transitional phrase “comprising” are moot as applied to the present claims.

Furthermore, the Examiner has alleged nonenablement of an Arg 722 and Phe 730 double mutant. *See* Office Action at page 5. In an effort to expedite allowance and without acquiescing to the Examiner’s assertions, Applicants have amended claim 2 to omit recitation of an Arg 722 and Phe 730 double mutant, thus obviating this ground for rejection.

Accordingly, Applicants request that rejection of claims 2, 6-9, 14, 17, 20, 37-40, 69, and 75 under 35 U.S.C. § 112, first paragraph, be withdrawn.

Conclusion

All of the stated grounds of rejection have been properly traversed, accommodated, or rendered moot. Applicants therefore respectfully request that the Examiner reconsider and withdraw all presently outstanding rejections. Applicants believe that a full and complete reply has been made to the outstanding Office Action and, as such, the present application is in condition for allowance.

Prompt and favorable consideration of this Amendment and Reply is respectfully requested. If additional discussion is desired, Applicants invite the Examiner to call the undersigned at the number indicated below.

Respectfully submitted,
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Date: February 13, 2009

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